[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1226; Directorate Identifier 2012-NM-122-AD; Amendment

39-17741; AD 2014-03-04]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation

(DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain

Bombardier, Inc. Model DHC-8-400 series airplanes. This AD was prompted by a report of a translating door handle jamming during opening of an aft door. This AD requires replacing the handle shaft with a new single-piece machined handle shaft on the aft entry and service doors, and requires revising the maintenance program by incorporating a new airworthiness limitation task. We are issuing this AD to prevent a migrated pin from jamming a translating door handle, which could prevent opening of the door and impede an emergency evacuation.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2012-1226; or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet http://www.bombardier.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221 **FOR FURTHER INFORMATION CONTACT:** Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone (516) 228-7318; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc. Model DHC-8-400 series airplanes. The NPRM was published in the <u>Federal Register</u> on December 13, 2012

(77 FR 74126). The NPRM was prompted by a report of a translating door handle jamming during opening of an aft door. The NPRM proposed to require replacing the handle shaft with a new single-piece machined handle shaft on the aft entry and service doors, and requires revising the maintenance program by incorporating a new airworthiness limitation task. We are issuing this AD to prevent a migrated pin from jamming a translating door handle, which could prevent opening of the door and impede an emergency evacuation.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2012-17, dated May 24, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

There was one reported case of the translating door handle jamming on opening. It was found that the pin on the existing handle shaft could migrate and cause the translating door handle to jam. A jammed translating door handle could prevent the opening of the door and impede evacuation in the event of an emergency.

This [Canadian] AD mandates the installation of the single piece machined handle shaft (ModSum 4-113687) on the aft entry door and the aft service door, as well as the incorporation of the new Airworthiness Limitation (AWL) tasks introduced as a result of this ModSum.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2012-1226-0002.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (77 FR 74126, December 13, 2012) and the FAA's response to each comment.

Request for Optional Compliance Method

Horizon Air requested that the NPRM (77 FR 74126, December 13, 2012) be revised to account for handle shafts that might have been replaced with the single-piece machined handle shaft through attrition. Horizon Air stated that the illustrated parts catalog identifies the single-piece handle shaft as an acceptable replacement part number, and that operators might have used that single-piece handle shaft as a replacement but without using the steps specified in Bombardier Service Bulletin 84-52-66, Revision A, dated October 24, 2011.

We agree to revise this final rule. We have redesignated paragraph (i) of the NPRM (77 FR 74126, December 13, 2012) as paragraph (i)(1) in this final rule and added paragraph (i)(2) to provide credit for installing single-piece machined handle shafts with certain part numbers by attrition (for example, replacing the handle shaft during maintenance actions) before the effective date of this final rule. Operators can provide a maintenance record of this action to show compliance with this final rule.

Request to Clarify Compliance Time

Horizon Air requested that the FAA state how the repetitive 25,000-flight-hour interval specified in the tasks required by paragraph (h)(1) of the NPRM (77 FR 74126, December 13, 2012) should be applied. Horizon Air asked if the 25,000-flight-hour

interval applies to the flight hours accumulated by the airframe, or to the in-service time accumulated on the handle.

We agree with the commenter's request, and have revised paragraph (h)(1) of this final rule to clarify that the 25,000-flight-hour compliance time for the repetitive inspection interval must be applied to the airplane service life, not to the handle service life.

Request to Remove the Word "New" for the Replacement Handle

Horizon Air requested that the word "new" be removed from the description of the required replacement part in paragraph (g) of the NPRM (77 FR 74126, December 13, 2012). Horizon Air states that, because Bombardier Service Bulletin 84-52-66, Revision A, dated October 24, 2011, uses the word "new" in the instructions for the handle shaft replacement, the use of the word "new" in the NPRM is unnecessary.

We disagree. We describe the required actions from service information as accurately as possible and without ambiguity as to the required condition of any replacement parts. We have no information or data to determine that "new or serviceable" would be more appropriate than "new," as specified in Bombardier Service Bulletin 84-52-66, Revision A, dated October 24, 2011. However, under the provisions of paragraph (j)(1) of this final rule, operators may request approval to use a "serviceable" handle if sufficient data are submitted to substantiate that the part would provide an acceptable level of safety. We have not changed this final rule in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (77 FR 74126,
 December 13, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 74126, December 13, 2012).

Costs of Compliance

We estimate that this AD will affect 78 products of U.S. registry.

We also estimate that it will take about 8 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$10,596 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$879,528, or \$11,276 per product.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's

authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- 2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
 - 3. Will not affect intrastate aviation in Alaska; and
- 4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2012-1226; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

2014-03-04 Bombardier, Inc.: Amendment 39-17741. Docket No. FAA-2012-1226; Directorate Identifier 2012-NM-122-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes; certificated in any category; serial numbers 4001, and 4003 through 4364 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 52; Doors.

(e) Reason

This AD was prompted by a report of a translating door handle jamming during opening of an aft door. We are issuing this AD to prevent a migrated pin from jamming a translating door handle, which could prevent opening of the door and impede an emergency evacuation.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Installation of the Single-Piece Machined Handle Shaft on the Aft Entry Door and the Aft Service Door

Within 6,000 flight hours or 36 months, whichever occurs first, after the effective date of this AD, replace the handle shaft with a new single-piece machined handle shaft on the aft entry and service doors by incorporating Modification Summary (ModSum) 4-113687, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-52-66, Revision A, dated October 24, 2011.

(h) Revision of the Maintenance Program Schedule

- (1) Within 30 days after the effective date of this AD, revise the maintenance program by incorporating the information in maintenance Tasks 521200-105 and 524100-105 of Bombardier Temporary Revision (TR) ALI-122, dated November 4, 2011, into Section 1 Certification Maintenance Requirements of the Airworthiness Limitations Items (ALI) Part 2, Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7. The compliance time for doing the initial inspections of the handle shafts on the aft entry and service door is within 25,000 flight hours after installation of the new handle shaft specified in paragraph (g) of this AD. The flight hours specified in the tasks must be applied to the airplane service life, not to the handle service life. Thereafter, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (j)(1) of this AD.
- (2) The maintenance program revision required by paragraph (h)(1) of this AD may be done by inserting a copy of Bombardier TR ALI-122, dated November 4, 2011, into Section 1 Certification Maintenance Requirements of the Airworthiness Limitations Items (ALI) Part 2, Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7. When this TR has been included in general revisions of the maintenance requirements manual, the general revisions may be inserted in the maintenance requirements manual and this TR removed.

(i) Credit for Previous Actions

- (1) This paragraph provides credit for the actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-52-66, dated July 25, 2011, which is not incorporated by reference in this AD.
- (2) This paragraph provides credit for the actions required by paragraph (g) of this AD, if, through attrition, the handle shaft was replaced with a single-piece machined handle shaft having part number 85217916-115 or 85217916-116 before the effective date of this AD.

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(k) Related Information

- (1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2012-17, dated May 24, 2012, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2012-1226-0002.
- (2) Service information identified in this AD that is not incorporated by reference may be viewed at the addresses specified in paragraphs (l)(3) and (l)(4) of this AD.

(1) Material Incorporated by Reference

- (1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.
- (2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.
 - (i) Bombardier Service Bulletin 84-52-66, Revision A, dated October 24, 2011.

(ii) Bombardier Temporary Revision ALI-122, dated November 4, 2011, to
 Section 1 Certification Maintenance Requirements of the Airworthiness Limitations
 Items (ALI) Part 2, Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM
 1-84-7.

(3) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet http://www.bombardier.com.

- (4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.
- (5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

 http://www.archives.gov/federal-register/cfr/ibr-locations.html.

 Issued in Renton, Washington, on January 22, 2014.

Jeffrey E. Duven, Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2014-02516 Filed 03/04/2014 at 8:45 am; Publication Date: 03/05/2014]